

Health Status Assessment Project - Analysis of "At – Risk" and Adolescent Populations

INTRODUCTION AND BACKGROUND

Staff presented the first year results of the Health Status Assessment Project to the Board at the November 2002 meeting. Board members asked for additional information on the first year results. This paper addresses those questions. Specifically, board members asked for an examination of the following areas of interest:

- 1) *First year results for the adolescent sample population (13 years and older).*
- 2) *Data on children who reported no chronic health condition at baseline but reported one after one year in Healthy Families Program.*
- 3) *Data on children that were reported to have declines in health status during their participation in the Healthy Families Program.*

1) Adolescent Summary (13-18 years)

The following request was made; "What are the first year results for the adolescent sample population?"

Overall Performance

A summary analysis of scoring follows for the adolescent population. **Table 1** presents overall PedsQL™ scoring for both lowest quartile and the total adolescent sample, along with a comparison to the total sample for all age groups.

Table 1. PedsQL Total Scale means for parent proxy-report baseline to year 1 for adolescents.			
PedsQL	Baseline	Year 1	Difference
Lowest Quartile - Adolescents	58.2	70.6	12.4
Lowest Quartile - All Ages	58.0	71.7	13.7
All Quartiles- Adolescents	79.7	80.9	1.2
All Quartiles - All Ages	81.3	81.3	0.0

School Performance

Table 2 and 3 present actual school functioning scores for the lowest quartile adolescent sample and for the total adolescent sample (all quartiles). School performance increased significantly for adolescents in the lowest quartile. Improvements were similar to those for children of all ages in the lowest quartile.

Table 2. PedsQL™ School functioning subscale item means at baseline and year 1. Adolescents in Lowest Quartile			
School Sub-Scale	Baseline	Year 1	Difference
Paying attention in class	35.2	56.6	21.4
Forgetting things	57.3	65.3	8.0
Keeping up in school activities	34.9	56.7	21.8
Missing school because of not feeling well	70.4	74.0	3.6
Missing school to go to the doctor or hospital	71.0	76.7	5.7

Table 3. PedsQL™ School functioning subscale item means at baseline and year 1. Adolescents in All Quartiles			
School Sub-Scale	Baseline	Year 1	Difference
Paying attention in class	66.7	70.9	4.2
Forgetting things	71.9	73.0	1.1
Keeping up in school activities	67.6	71.1	3.5
Missing school because of not feeling well	82.5	81.8	-0.7
Missing school to go to the doctor or hospital	83.4	83.6	0.2

Table 4 shows the improvement in school functioning scores for the adolescent sample versus total sample (all ages) within the **lowest quartile** at baseline.

Table 4. PedsQL™ School functioning subscale improvement in scores baseline to year 1 Lowest Quartile		
School Sub-Scale	Adolescents	All Ages
Paying attention in class	+21.4	+23.3

Forgetting things	+8.0	+8.7
Keeping up in school activities	+21.8	+24.6
Missing school because of not feeling well	+3.7	+4.2
Missing school to go to the doctor	+5.8	+4.9

Adolescent scores and improvements were similar to those experienced by the total (all ages) sample population for both the lowest quartile and all quartiles.

Access to Care

The Healthy Families Program improved access to care for adolescents in the *lowest quartile* and for all adolescents in the program. **Table 5** shows that adolescents in the lowest quartile were more likely, from baseline to year 1, to report having a regular physician and less likely to report problems getting care or foregone health care.

Table 5. Percent of adolescents in the <i>lowest quartile</i> with personal physician, reporting problems getting care, and reporting foregone care as compared to overall sample in the <i>lowest quartile</i> .			
Personal physician	Baseline	Year 1	Difference
Adolescents in lowest quartile	54.7%	72.3%	17.6%
All ages in lowest quartile	52.4%	61.6%	9.2%
Problems getting care			
Adolescents in lowest quartile	32.1%	26.1%	(6.0%)
All ages in lowest quartile	29.0%	23.0%	(6.0%)
Foregone health care			
Adolescents in lowest quartile	35.5%	17.4%	18.1%
All ages in lowest quartile	25.0%	14.9%	10.1%

2) Children reporting no chronic health condition at baseline and reporting a chronic condition after one year in HFP.

The following question was posed. *“How many children developed a chronic health condition while participating in the Healthy Families Program, and what was the outcome?”*

Of the subscribers participating in the baseline and year 1 surveys, 242 children reported no chronic health condition at baseline but did report a chronic health condition at year 1. Total PedsQL™ 4.0 scores for this group decreased from 79.39 to 76.18.

These included 82 with asthma, 4 with diabetes, 26 with ADHD, 23 with depression, and 111 with “other”. Some reported more than one condition.

3) Children whose health status declined during their participation in the Healthy Families Program.

The authors of the PedsQL™ survey instrument indicate that children who fall below one standard deviation are “at risk”. For example, if a child’s score falls one standard deviation below the mean, monitoring and possible medical intervention should be considered, while scores two standard deviations below the mean suggests that immediate medical intervention should be provided.

Recapping data from the “Health Status Assessment Project – First Year Results”, scores for children at two standard deviations (2SD) below the mean at baseline showed exceptional gains, as shown in **Table 6**, in health related quality of life after joining the Healthy Families Program.

Table 6. PedsQL Total and Summary Scale means from baseline to year 1 for children greater than 2 standard deviations below the mean at baseline.		
PedsQL™ 4.0	Baseline	Year 1
Total	42.6	66.3
Physical	36.0	65.9
Psychosocial	46.4	66.1

Based on this result, the following question was asked:

“How many children regressed to more than 2 standard deviations below the mean during their enrollment in the Healthy Families Program?”

Of the 6,005 subscribers who participated in the baseline and year 1 survey, 5,742 scored better than 2SD below the mean, while 263 scored at or worse than 2SD below the mean.

Of the 5,742 who scored better than 2SD below the mean in the baseline study, 186 (3.2%) dropped to 2SD below the mean after one year in the Healthy Families Program.

As mentioned in two prior Health Status Assessment reports, surveys are sent and completed by both parent and child for most age groups. For the 186 children in the “declining health status sample”, the PedsQL™ scores fell from baseline to time 1 for both parent and child report, as shown in **Table 7**, but the correlation between parent and child reports declined from 0.48 (about what you would expect) at baseline, to 0.12 (much lower than expected, based on the authors previous work). This implies that parents noted a large decline in their child’s health status, but this view is not shared by their children.

Table 7. PedsQL Total Scale means for parent proxy-report and child self-report from baseline to year 1 for children greater than 2SD below the mean at baseline and less than 2 SD below the mean at year 1		
PedsQL™ 4.0	Baseline	Year 1
Parent Proxy-Report	72.1	44.3
Child Self-Report	74.6	68.8

- ✓ Hispanic/Latino and Spanish speakers comprised a larger percent of this group when compared to the overall population sample. **Table 8** compares the breakdown of the overall sample for year 1 to that of the children who reported declining health status after enrollment in the Healthy Families Program.

Table 8. Demographic breakdown of year 1 overall sample compared to sample of parents who reported children with declining health status		
Category	Overall Sample	Declined to >2SD below mean at year 1
Ethnicity		
White	12.6%	9.1%
Hispanic/Latino	62.2%	73.1%
Black/African American	1.9%	2.2%
Asian/Pac Islander	12.4%	7.0%
Not Reported	10.9%	8.6%
Language		
Spanish	53.9%	73.7%
English	38.6%	22.6%
Other	7.5%	3.7%

- ✓ With regards to the presence of chronic health conditions in this population, 13.4% of subscribers reported having a chronic health condition at baseline,

where 14.5% reported having a chronic health condition at year 1.

- ✓ The percentage of these children who had a personal physician, experienced problems getting care, or went without care, was not exceedingly different from the overall population.
- ✓ Parent’s perception of school performance also dropped remarkably for this group. **Table 9** presents scores for these 5 school sub-scales.

Table 9. PedsQL™ School functioning subscale means at baseline and year 1. Children less than or equal to 2SD at baseline and more than 2SD at year 1		
Category	Baseline	Year 1
Paying attention in class	56.9	15.8
Forgetting things	69.6	48.6
Keeping up in school activities	58.4	18.9
Missing school because of not feeling well	78.3	63.8
Missing school to go to the doctor or hospital	77.4	65.7

Summary

Adolescents

- ✓ The adolescent sample population’s PedsQL™ scores were similar to those of the overall sample population. One noteworthy difference related to access to care measures. These show adolescents in the lowest quartile, who stayed with the Healthy Families Program for a one year period, reported a much higher incidence of having a personal physician and greater improvement in getting care when needed, as compared to the overall population.

Chronic Conditions

- ✓ Changes in chronic health condition had little effect on overall health status as measured by the PedsQL™ survey instrument.

Declining Health Status Sample

- ✓ There is a large disparity between the parent’s and child’s perception of health status for children reported to have declining health status.

- ✓ Spanish speakers and Hispanic/Latino children comprised a larger proportion of the declining health status sample.
- ✓ Even though health status declined, access-to-care measures were similar to the overall population sample.
- ✓ Children in the declining health status sample showed the lowest scores in school performance of all groups.